

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in this application.

Listing of Claims:

1. (currently amended) A system for selecting and controlling electrically actuated valves, the system comprising:
an internal combustion engine having at least a first and second group of cylinders, at least one group having a cylinder with at least an electrically actuated valve; and a controller operate operating a group of valves in said first cylinder group that is different from a group of operating valves in said second cylinder group, during a cycle of said engine, wherein the difference between said first cylinder group and said second cylinder group is at least one of a number of operating valves per cylinder, and a region of operating valves in a cylinder head, where both said first and second groups perform combustion during said cycle.
2. (original) The system of Claim 1 wherein said first and second cylinder groups are located in different banks of a V engine.
3. (previously presented) The system of Claim 1 wherein said first and second cylinder groups have two electrically actuated valves in each cylinder.
4. (previously presented) The system of Claim 1 wherein said first and second cylinder groups have three electrically actuated valves in each cylinder.

5. (previously presented) The system of Claim 1 wherein said first and second cylinder groups have four electrically actuated valves in each cylinder.
6. (previously presented) The system of Claim 1 wherein said first and second cylinder groups have five electrically actuated valves in each cylinder.
7. (original) The system of Claim 1 wherein said first and second cylinder groups combust mixtures having different air-fuel ratios.
8. (original) The system of Claim 1 wherein said first and second cylinder groups have different spark timing.
9. (original) The system of Claim 1 wherein said first and second cylinder groups induct different engine air amounts.
10. (original) The system of Claim 1 wherein said first and second cylinder groups have different valve lift heights.
11. (original) The system of Claim 1 wherein said first and second cylinder groups valve timing is different.
12. (previously presented) A system for selecting and controlling electrically actuated valves, the system comprising:

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an internal combustion engine having a first and second group of cylinders, said first group of cylinders having valves operating in a first configuration and said second group of cylinders having valves operating in a second configuration, said cylinders in said first and second group each having a cylinder head with at least two regions, with at least two electrically actuated valves, said valves in different regions; and

a controller to select at least a first valve for each cylinder of said first cylinder group, located in at least one region of said first and second region, and to select at least a second valve for each cylinder of said second cylinder group, located in another region of said first and second regions, and to operate at least one cylinder from each of said selected first and second cylinder groups with said selected valves, without operating non-selected valves, during respective cycles of said cylinder groups, where both said first and second groups perform combustion during said cycle, and said valves are intake valves.

13. (original) The system of Claim 12 wherein said first and second cylinder groups are located in different banks of a V engine.

14. (previously presented) The system of Claim 12 wherein said first and second cylinder groups have three electrically actuated valves in each cylinder.

15. (previously presented) The system of Claim 12 wherein said first and second cylinder groups have four electrically actuated valves in each cylinder.

16. (previously presented) The system of Claim 12 wherein said first and second cylinder groups have five electrically actuated valves in each cylinder.
17. (original) The system of Claim 12 wherein said first and second cylinder groups combust mixtures having different air-fuel ratios.
18. (original) The system of Claim 12 wherein said first and second cylinder groups have different spark timing.
19. (original) The system of Claim 12 wherein said first and second cylinder groups induct different engine air amounts.
20. (original) The system of Claim 12 wherein said first and second cylinder groups valve timing is different.
21. (original) The system of Claim 12 wherein said first and second cylinder groups have different valve lift heights.
22. (currently amended) A computer readable storage medium having stored data representing instructions executable by a computer to control an internal combustion engine of a vehicle, the internal combustion engine including at least a first and second group of cylinders, at least one group having a cylinder with at least an electrically actuated valve, said storage medium comprising:

instructions to select and operate a group of valves in said first cylinder group that is different from the group of operating valves in said second cylinder group, during a cycle of said engine, wherein the difference between said first cylinder group and said second cylinder group is a number of operating valves per cylinder, where both said first and second groups perform combustion during said cycle.

23. (previously presented) The storage medium of Claim 22 wherein said storage medium further includes instructions to operate said first and second cylinder groups over at least two consecutive cycles of said engine.

24. (previously presented) A system for selecting and controlling electrically actuated valves, the system comprising:

an internal combustion engine having a first and second group of cylinders, said first group of cylinders having valves operating in a first configuration and said second group of cylinders having valves operating in a second configuration, said cylinders in said first and second group each having a cylinder head with at least two regions, with at least two electrically actuated valves, said valves in different regions; and

a controller to select at least a first valve for each cylinder of said first cylinder group, located in at least one region of said first and second region, and to select at least a second valve for each cylinder of said second cylinder group, located in another region of said first and second regions, and to operate at least one cylinder from each of said selected first and second cylinder groups with said selected valves, without operating non-selected valves, during respective cycles of said cylinder groups, where both said first and second groups perform combustion during said

cycle, and said valves are exhaust valves.

25. (previously presented) The system of Claim 24 wherein said first and second cylinder groups are located in different banks of a V engine.

26. (previously presented) The system of Claim 24 wherein said first and second cylinder groups have different spark timing.

27. (previously presented) The system of Claim 24 wherein said first and second cylinder groups valve timing is different.